

Message

From: EPAResearchCompass [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C1E8F11508674C3C954553A1129D33E5-EPARESEARCH]
Sent: 10/22/2019 8:32:45 PM
To: ORD-ALL Feds and NonFeds and RSLs [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c6a653b2a58647229a806910b7f98b1c-ORD-ALL Fed]
CC: Klinger, Adam [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=346d5466632f4967adc7169c8d2ce4fd-Klinger, Adam]; Liljegren, Jennifer [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c7098a838cd34f75b8878571fe95d939-JLiljegr]; Pollard, Solomon [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=16cdf700f8024145847a2770b84abae3-Pollard, Solomon]; Clarage, Meredith [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ee9504437be545489f518710a5e80e68-Clarage, Meredith]; Fan, Shirley [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=cdeba1df9599435cb7401d0a65be7cda-Sfan02]; Crk, Tanja [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=fccf9b9519484e8f88e90d3573253817-Tanja Crk]; Scalise, Laura [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=929fb1b8d1b14edc9626467bb6d5cc2a-LSCALISE]; MaGowan, Maricruz [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8c4c1646850c47f6bdfb869db47c467c-MMagow02]
Subject: Weekly Compass: October 22, 2019



Weekly Update: 10/22/2019

Welcome to the Weekly Compass, your gateway to information about recent and upcoming ORD activities. If you have ideas for the Weekly Compass, please send them to the [editors](#). To see past issues, visit [the archive](#) on ORD@work.

Weekly Note from Jennifer
ORDers –

Last week Chris Robbins and I had a terrific visit with our colleagues in Denver. We discussed plans for a future meeting with the Region 8 states and tribes where we will share the work we are doing that is responsive to their needs.

This week we are meeting with ORD's Executive and Management Councils in Cincinnati for the first time since the reorganization. In addition to learning about some of the research that is being led out of Cincinnati, we will do a quick assessment of the reorg implementation thus far, talk about ELMS in the restructured ORD, assess this round of the StRAP development process, and participate in a management by strength training. Thanks to everyone in Cincinnati who supported this meeting.

EPA launched the CFC campaign earlier this month. If you have already made a contribution to the CFC, thank you. If not, please consider a donation to a cause that speaks to you. Perhaps you know one of the estimated 12.8% of women who have been diagnosed with breast cancer. Maybe you read about one of the more than 130 people who overdose and die each day from opioid addiction. Malaria causes an estimated 216 million clinical episodes in Africa, 90% of which result in the death of the patient. More than 9 million people lack access to HIV testing services. Although scientific advancements have greatly improved medical treatments and protocols, there is more to do. CFC charities are working hard to find cures for cancer or aging illnesses, prevent the spread of diseases, deliver quality health care in rural areas, and so much more. CFC supports many causes; please consider donating to the CFC for the cause of your choice. The CFC is [newly featured on ORD@Work](#). Throughout the campaign, this page will highlight ORD's efforts in raising awareness for CFC. Thank you as always for your generosity.

Finally, it gives me great pleasure to [announce the recipients of the ORD Honor Awards](#). Every day, I witness individuals and teams who exemplify the best of what ORD has to offer. Your efforts continue to demonstrate tremendous dedication toward advancing the mission of protecting human health and the environment. These efforts and show of dedication are exemplified by the impressive list of ORD recipients of these prestigious awards. Please join me in congratulating these individuals for a job well done!

-Jennifer

Quick Updates

- Get the latest on the [ORD Reorganization](#) including frequently asked questions, org charts and staffing plans.
- As part of the Agency's month-long tribute to Children's Health Month, SHC has put together a webpage to highlight how Agency research has contributed to Children's Environmental Health: <https://www.epa.gov/healthresearch/spotlight-epa-research-childrens-health-month>.
- The CFC Donation Portal is open until January 12, and you can make an impact! Simply click on the link, register, and make your donation cfcgiving.opm.gov/

- Upcoming Webinars

- 10/23, 1 ET: ORD's Mine and Mineral Processing Virtual Workshop Session 4 - Big Data
- 10/24, 11 ET: Computational Toxicology Communities of Practice: The NCATS BioPlanet – an integrated platform for exploring the universe of cellular signaling pathways
- 10/24, 12 ET: SERDP & ESTCP Webinar Series: Advances in Managing Contaminated Groundwater Using High Resolution Site Characterization and Contaminant Mass Flux Reduction
- 10/29, 2 ET: Small Water Systems Research Webinar: Funding Opportunities through EPA's Drinking Water Program
- 10/31, 1 ET: Contaminated Sediments Virtual Workshop Session 2 - Risk Assessment
- 10/31, 12 ET: SERDP & ESTCP Webinar Series: Developing and Demonstrating Non-Toxic and Sustainable Coating Systems for Military Platforms

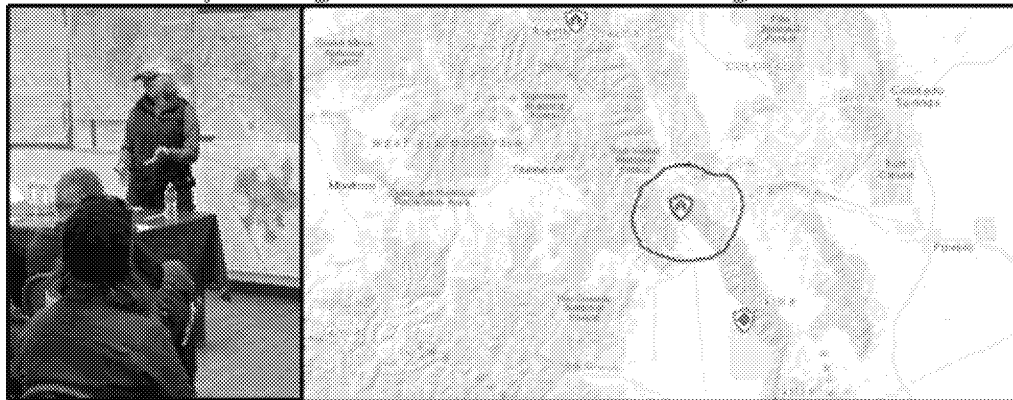
Photos of the Week: Accelerating the Pace of Chemical Risk Assessment Workshop

In the Lab:

TSCA Support

Discussions between ORD and OCSPP-OPPT are underway concerning ORD's support of the next 20 TSCA chemical evaluations. Both ORD and OPPT are identifying scientists to lead and participate in the chemical workgroups that will be developing the scoping documents to be released for public review in early 2020. Discussions are also underway to identify the science issues for each chemical that may require ORD support. Additionally, on Thursday there will be a meeting of ORD and OPPT senior management and scientists to discuss the results of the evidence mapping pilot for TSCA.

CEMM's Gayle Hagler Served in CO during the Decker Forest Fire



CEMM's (Center for Environmental Measurement & Modeling) Gayle Hagler was in Colorado from September 26 thru October 9 serving as an Air Resource Advisor (ARA) for the Decker Fire. ARAs are dispatched to wildland fires to assist with understanding and predicting smoke impacts on the public and fire-fighting personnel. They analyze,

summarize and communicate these impacts to incident teams, air quality regulators and the public. The Decker fire affected two national forests and Bureau of Land Management land in the region. Hagler's role involved monitoring and forecasting smoke and air quality conditions related to wildfire emissions, coordinating with local and state public health organizations and supporting the Incident Management Team (IMT) with public communications.

Shoreline Cleanup Assessment Technique Class

This week, CEMM's (Center for Environmental Measurement & Modeling) Gulf Ecosystem Measurement and Modeling Division will host a Shoreline Cleanup Assessment Technique (SCAT) Team Member Level training course. The course, overseen by NOAA, is focused on providing responders with the skills necessary to be successful members of a SCAT Team. The training will outline methods for conducting shoreline assessments after oil spills and incorporating the results into the decision-making process for shoreline cleanup. The SCAT methods originated during the response to the 1989 Exxon Valdez oil spill and uses standardized terminology to document shoreline oiling conditions.

Next Generation Emission Measurement Refinery Demonstration

This week, CEMM's (Center for Environmental Measurement & Modeling) Eben Thoma and Haley Lane (ORISE) will travel to Corpus Christi, TX. They are leading a demonstration and discussion on the prototype leak detection sensor network currently under full-scale testing in two process units at the Flint Hills Resource (FHR) West refinery. This first-of-its-kind Next Generation Emission Measurement system is being developed and validated under a Cooperative Research and Development Agreement with FHR and Molex, a sensor/connector company. If successful, the approach could dramatically improve the way fugitive Volatile Organic Compound and Hazardous Air Pollutant emissions are detected and fixed in large facilities, reducing emissions, improving air quality, and saving companies money. Staff from OAQPS and Region 6 will also be present to see the sensor network in action and participate in technical discussions regarding the emerging approach.

Lead Action Plan Research Goal 4 Workshop

EPA is holding a workshop with its federal partners on December 4-5 in Bethesda, MD, to communicate progress to date; identify research gaps and opportunities; and prioritize next steps to leverage, coordinate, and further implement the Goal 4 actions in the Federal Lead Action Plan. The workshop is intended for federal policy makers, regulators, and scientific staff from participating agencies in the President's Task Force. The workshop will consist of plenary presentations, panel sessions and action-specific breakouts followed by several hours with a smaller group to draft a proposed set of interagency collaboration activities for advancing Goal 4 implementation. Participants will identify opportunities to prioritize, leverage, coordinate, and build cross Federal Agency collaborative lead research. If you're interested in attending, [register here](#) using the password: **FLAP2019FED**. Online registration will close on November 20.

Lead Updates

- On October 15, EPA released the first update of the Lead and Copper rule since 1991. Research from SHC, SSWR and HERA played a significant role in supporting the development of multiple aspects of the new rule: identifying lead service lines

and corrosion control, drinking water sampling, exposure analysis, and health effects feeding into benefit/cost calculations.

- CPHEA's James Brown presented the All Ages Lead Model (AALM) to EPA's Science Advisory Board (SAB) for their peer review last week. AALM predicts blood lead levels. It was first peer reviewed by the SAB in 2005, but it has not yet been used for regulatory purposes.
- CPHEA's Valerie Zartarian was invited by Region 5 to participate in their call tomorrow with Regina R. Strong, Environmental Justice Public Advocate for the Michigan Department of Environment, Great Lakes, and Energy. Valerie is on the agenda to discuss ORD's work on analyzing and mapping available data to identify high lead exposure locations in Michigan, and next steps on science to inform joint planning.

New Publication on Nitrogen Sources

ORISE Fellow Robert Sabo and CPHEA's Christopher Clark and Jana Compton have a new publication in *JGR Biogeosciences*. "Decadal shift in nitrogen inputs and fluxes across the contiguous United States: 2002-2012", which addresses inventorying major sources of nitrogen in watersheds across the U.S.

Preliminary PFAS Biosolids Study Site Visit

CESER's Carolyn Acheson, Michael Brooks, and Ron Herrmann are traveling to Boise, Idaho, to visit the West Boise Water Renewal facility, the Lander Street Water Renewal Facility, and the Twenty Mile South Farm this week. They will conduct a preliminary evaluation of the Twenty Mile South Farm as a possible field site to study the fate and transport of per- and polyfluoroalkyl substances (PFAS) released from land-applied biosolids. EPA's PFAS Action Plan calls for research to better understand the risk posed by PFAS-impacted biosolids and other land applied materials. The City of Boise has been very receptive to the potential use of the Twenty Mile South Farm as a field site in the study. The visit and results from the sampling activity will be used to decide whether this site should be included in the research project. Moreover, sampling results will be used to complete the research design for the study.

Collaboration to Improve Technology to Quantify Landfill Gas Emissions

CESER, Region 5, and other Regions and States, are collaborating to improve technology for quantifying landfill gas emissions. Ken Ruffatto from Region 5, supported by CESER's Susan Thorneloe, will conduct an assessment at Arbor Hills Landfill in Northville, Michigan, this week. A new technology will be deployed using drones developed and operated by Sniffer Robotics based out of Ann Arbor, Michigan. The drones carry a vapor analyzer that is programmed to perform methane surface emission monitoring according to EPA Method 21 and the Landfill New Source Performance Standards (NSPS) requirements. EPA will also perform comparative monitoring to assess the reliability of the drones in finding methane surface exceedances. This technology will be considered along with other potential technologies to identify better approaches to quantifying landfill emissions.

Public Forum Meeting for the Upper Columbia River Superfund Site

Kira Lynch, Region 10 STL, will provide community members in Colville, Washington with an update on progress being made on the Upper Columbia River Superfund site. She will present information on the collaborative soil amendment technology evaluation

study being carried out by EPA researchers, Teck America, Confederated Tribes of the Colville Reservation, University of Washington, Ohio State University, and others. Results from this study will be used to support consideration of this innovative approach for lead contaminated soil remediation in the Feasibility Study.

Some Recent Grantee Publications

- Recently, STAR grantees published an article in Environmental Engineering Science detailing their study on how water conservation practices can impact water system.
- STAR grantees published results of their evaluation of cardiotoxicity hazard, concentration-response, and population variability of over 130 chemicals using high-throughput screening in a population-based organotypic induced Pluripotent Stem Cells (iPSC)-derived cardiomyocyte model from over 40 human donors, demonstrating the utility of this in vitro human cell-based model to screening of a large number of drugs and chemicals.
- Using a composite measurement that accounts for both residential and school distance to major roadways, Harvard Clean Air Research Center researchers report further evidence that major roadway proximity plays an important role in asthma morbidity in inner-city school children.

Providing Technical Support to the Tristate Mining District

CESER's Rob Weber & Souhail Al-Abed, CPHEA's Mark Johnson, and Region 7 are meeting in Webb City, Missouri (and potentially at select site locations) to discuss ongoing and upcoming stream sampling activities and future work. This includes ORD technical support being planned in the Region 7 portion of the lead-and-zinc-contaminated Tri-State Mining District (TSMD). The TSMD within Region 7 includes 3 National Priority List sites.

Water Column Sampling for Microplastics in Region 9

Last week, CESER's Anna-Marie Cook assisted Region 9 with water column sampling for microplastics in Boston Harbor. The sampling effort is part of a CRADA between Region 9 and Draper Laboratory located in Cambridge, MA, aimed at developing an innovative in-situ screening sensor for real-time identification of microplastics in the water column. The sampling effort involves taking depth samples using two high-throughput filtering devices for capturing micro-particles for later laboratory analysis, while simultaneously performing tests with the Draper sensor to determine if there is a correlation between the collected filtered samples and the in-situ samples. The sensor, if successful, should have application for screening micro-sized particulate matter of any type in the water column.

In the Office

We need your pictures!

2020 marks fifty years since the establishment of EPA. ORD is joining the rest of the Agency to celebrate, and we need your help! We are looking for photographs of EPA research and researchers through the years, from setting up our first labs to the cutting-

edge work we are engaged in today. Please share what you have buy sending to Aaron Ferster at: ferster.aaron@epa.gov

ORD's New Fact Sheet Approval Process

ORD has streamlined our process for getting approvals for external fact sheets! Before the reorg, the fact sheet approval process was Lab/Center/Office dependent and required varying levels approvals, sometimes taking up to five months. ORD's new process has four steps for non-sensitive technical fact sheets and takes approximately 1 month from concept, to draft, to approval. The process begins with a conversation with your Center/Office Communication Lead to determine whether a fact sheet is the best method for sharing the relevant information, and if so, lays out the key messages to be included. This new process is being implemented ORD-wide, giving ORD a single process across the new organization. Non-technical fact sheets have been eliminated; instead the Science Matters editorial process will be used to share non-technical content with the public. [More information on the new fact sheet approval process can be found here.](#)

Service Now, the New EISD Self-Service Portal, Is Here!

On September 30, the Office of Mission Support launched the new [EISD Self-Service Portal](#), called Service Now. Service Now improves how you interact with EISD by giving you online access to many of EISD's services and resources. Some of the things you can do online include:

- Submit an incident
- Check the status of an existing incident
- Complete user satisfaction surveys on closed incidents
- Reset your Local Area Network (LAN)
- Search for solutions to common issues
- Chat live with an EISD representative

To access your [EISD Self-Service Portal](#), log in using your LAN user ID and password or your PIV card. Once you have logged in, you can find step-by-step instructions by clicking on the TOURS button in the upper right-hand corner. For additional information on the EISD Self-Service Portal, please call EISD at 1-866-411-4372 or email eisd@epa.gov.

Pride in Federal Service Summit

Last week, CESER's Briana Niblick, LGBTQ Special Emphasis Program Manager for EPA-Cincinnati, attended the National Out & Equal Workplace Summit and co-hosted the inaugural Inter-Agency Pride in Federal Service Summit in Washington, DC. The Out & Equal Summit features nearly 100 workshops, panels, and participant roundtables, all focused-on sharing strategies and best practices to create workplaces inclusive of all sexual orientations, gender identities, and gender expressions. The Pride in Federal Service Summit, co-organized by Briana, will offer an additional day of training and networking for federal employees from across the country, who work in areas of LGBTQ employment and inclusion. Over 200 federal employees were expected.

Network File Storage Hardware Refresh

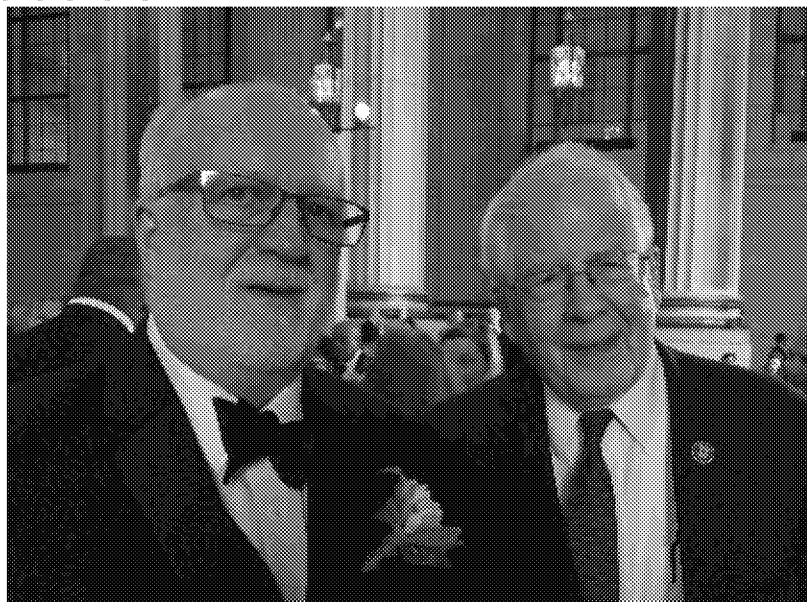
OSIM has completed a refresh of all ORD network file storage hardware; approximately 1.4 petabytes of file storage across ORD. This project was completed in two phases; RTP (which includes DC and Edison) during 2018 and the remaining sites (Ada, Athens,

Cincinnati, Corvallis, Duluth, Gulf Breeze, Narragansett, and Newport) during 2019. The network file storage design allowed this work to be completed during the day with no downtime needed for ORD personnel.

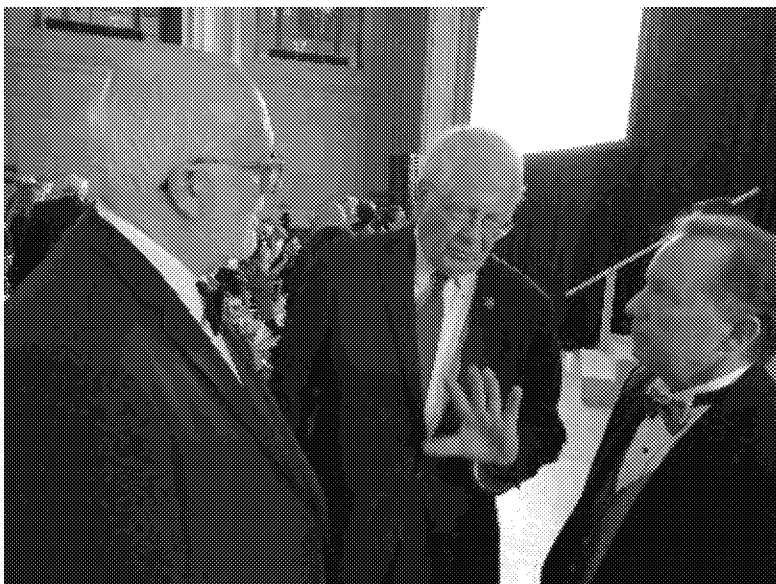
Accolades

Sammies Finalist Reception

Finalists for the Sammys (Samuel J. Heyman Service to America awards) were honored last week during an awards gala at the Andrew W. Mellon Auditorium in Washington, D.C. ORD's Sammys finalist, CPHEA's (Center for Public Health and Environmental Assessment) Will Boyes was in attendance. Will was nominated in the category of Career Achievement for his research which contributed to occupational and environmental standards for a number of potentially neurotoxic chemicals found in commonly-used products. Congratulations to him on this accomplishment. Below are some photos from the event.



Will Boyes and Representative David Price from North Carolina, who played a large role in establishing EPA's campus in RTP.



Will Boyes, Congressman Price and Associate Deputy Administrator Doug Benevento chatting at the reception.



Will Boyes and his wife, Laura, with EPA Administrator Wheeler

CEMM Scientist Recognized for 20 Years of Support to EPA Air Quality Modeling
 Earlier this month, CEMM's (Center for Environmental Measurement & Modeling) David Heist and Steven Perry (Air and Environmental Systems Modeling Division) were invited by OAQPS to participate in the 12th Conference on Air Quality Modeling in RTP. They were asked to participate as subject matter experts on two panel discussions dealing with mobile sources and building downwash modeling issues. The conference provided an overview of the latest features of the currently preferred air quality models and provided a forum for public review and comment on potential revisions to the way the Agency determines and applies the appropriate air quality models in the future. As one of the original architects of the widely used AERMOD air quality model, Perry was recognized by OAQPS for his 30 years of working to improve air quality models.



Dr. Steve Perry (CEMM) receives special recognition from the AMS/EPA Regulatory Model Improvement Committee for his 30 years of service towards improving air quality models. Pictured from the left to right: Roger Brode (OAQPS), Dr. Akula Venkatram (UC-Riverside), Robert Paine (AECOM), and Dr. Steve Perry.

NCSOT Meeting and Awards

Last week, the North Carolina Society of Toxicology (NCSOT) welcomed nearly 300 people to the EPA RTP campus for the 2019 Annual Meeting, "Dealing with the Complexity of Real Life: Combined Exposures and Mixtures." CPHEA's Erin Pias Hines is this year's NCSOT president. Significant EPA representation was included in the following awards:

- Colette Miller, Ph.D. (mentors Jan Dye and Urmila Kodavanti, CPHEA): runner-up for the President's Award for Research Competition, presented annually to a postdoctoral trainee.
- Poster awardees:
 - Post-baccalaureate 2nd place - Tirumala Devi Kodavanti (mentor Michael Hughes, CTE)
 - Graduate Student 1st place - Eva Vitucci (mentor Shaun McCullough, CPHEA)
 - Postdoctoral 2nd place - Colette Miller, Ph.D (mentors Jan Dye and Urmila Kodavanti, CPHEA)

Student Researcher Wins Poster Contest

Constance Green, Environmental Research Apprenticeship Program (ERAP) student with CESER, was the first-place winner at the 4th Annual Oka' Sustainability Conference with her poster, *Role of Surface Radical Scavenging in Ground Water Chemical Oxidation Treatment Systems*. The conference was held in Ada, Oklahoma. Constance works with Klara Rusevova and Scott Huling in the Groundwater Characterization and Remediation Division.

In the News

CyAN Profiled by NPR

CEMM's (Center for Environmental Measurement & Modeling) Blake Schaeffer was recently interviewed by Wisconsin Public Radio about the CyAN (Cyanobacteria Assessment Network) project. Blake spoke about how the satellites help water quality managers make more informed decisions about monitoring.

In the Community

EPA-RTP STEM Outreach Program

- Yesterday, the program led a hands-on activity at W.G. Pearson Elementary School in Durham.
- Today, the Program will speak on a panel about careers in agriculture, food, and natural resources at Riverside High School in Durham; present a hands-on water quality activity to 3rd grade students at Durham Soil and Water's Field Day at the Durham Public School's Hub Farm; and participate as Career Coaches in the Leadership Triangle's Transforming Leaders fall semester.
- On Wednesday, the Program will host an EPA booth at the Outreach Expo at the North Carolina Association for Biomedical Research's (NCABR's) 2018 Bridging the Gap Conference in Raleigh. Also on October 23, the Program will present a hands-on activity, *Connecting Ecosystems and Human Health*, to 3rd grade students at Durham Soil and Water's Field Day at the Durham Public School's Hub Farm.
- On Thursday, the Program will speak on a panel about careers in agriculture, food, and natural Resources at Hillside High School in Durham. Also on October 24, the Program will host a group of 4th grade students from the Duke School for building tours and hands-on activities about water quality, air quality, and energy.
- On Friday, the Program will present *Generate: The Game of Energy Choices* to Earth Science students at Panther Creek High School in Cary. Also on October 25, the Program will host a group of students from the Air and Waste Management Student Chapter at North Carolina State University for an afternoon of building tours, lab tours, and speed mentoring.

Photo of the Week: Accelerating the Pace of Chemical Risk Assessment Workshop

Earlier this month, ORD hosted Accelerating the Pace of Chemical Risk Assessment (APCRA) annual workshop. ORD's Jennifer Orme-Zavaleta and Rusty Thomas gave introductory remarks, and ORD scientists participated along with OCSPP, OLEM and OW colleagues. The APCRA initiative is addressing barriers and opportunities to using new approach methodologies (NAMs) in chemical risk assessment through a collaboration of international and national government agencies. These results demonstrate the feasibility, and continuing challenges, of using NAMs to inform chemical risk assessments. Below are some photos from a session led by Anna Lowit in OCSPP & moderated by ORD's Tina Bahadori, followed by some group photos.



APCRA
Accelerating the Pace
of Chemical Risk Assessment
October 9-10, 2019



EPA colleagues have fun at APCRA workshop dinner - Mary Ross (OSAPD Director), Lou D'Amico (IOAA), Samantha Jones (IOAA/HERA), Colleen Flaherty (Office of Water), Tina Bahadori (IOAA) and Maureen Gwinn (CCTE)



APCRA group dinner, US Federal Staff - Jennifer Orme-Zavaleta (IOAA), Adam Biales (CCTE), Barbara Wetmore (CCTE), Annette Guiseppi-Elie (CCTE), Russell Thomas (CCTE), Monica Linnenbrink (CCTE), Nisha Sipes (NIEHS/NTP) have dinner with other APCRA workshop attendees from international government organizations